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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,155	09/23/2003	Martin A. Cohen	884.0207USU	1663

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EXAMINER	
RALIS, STEPHEN J	
ART UNIT	PAPER NUMBER
3742	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/669,155	COHEN ET AL.	
	Examiner	Art Unit	
	Stephen J. Ralis	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,12-20 and 23-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,12-20 and 23-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant is notified of receipt and acknowledgement, on 15 November 2006, of the amendments to Application No. 10/669,155, filed on 23 September 2003.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: On page 17, lines 17-23 of the specification, Applicant has designated elements with respect to Figures 8 and 9 as housing 116, fluid reservoir 120 and heating plate 122. These elements are disclosed in Figure 9 as housing 16, fluid reservoir 20 and heating plate 22. This discrepancy needs to be respectfully rectified. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 23-25 been renumbered 82-84.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 6, 7, 8, 9, 12, 13, 15, 16, 18, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barber (UK Patent No. GB 2221925A).

Barber discloses a controller (see Figure 2) for use with a fabric grooming device (see Figures 1, 2) comprising: an interactive user interface with one or more input selectors (temperature selector 4; page 3, lines 10-16; page 4, lines 12-27; see Figures 1, 2) and one or more output indicators (LCD display 6); with the interface being operatively connected to a microprocessor (14; page 4, lines 12-33; see Figure 2), and

the interface (temperature selector 4 and LCD display 6) being integrated onto the fabric grooming device (see Figure 1).

With respect to the limitations of claim 2 and each of the one or more input selectors having an image or symbol associated therewith for identifying the function and/or operation corresponding thereto, Barber discloses settings single dot, double dot, triple dot, "STEAM" and "MAX" as on the body (5) of the iron for temperature selection by the user utilizing the temperature selector (4) (page 3, lines 10-16; see Figure 1). The disclosed temperatures settings (i.e. single dot, double dot, etc.) are symbolic markings providing communication to the user about the status of the device, therefore, the disclosed markings of a single dot, double dot, triple dot, "STEAM" and "MAX", as on the body (5) of the iron for temperature selection, are inherently symbols.

With respect to the limitations of claim 6 and one or more input selectors being selected from a group consisting of a button, a switch, a roller, and a knob, Barber explicitly discloses the input selector/temperature selector (4) being a rotatable knob (see Figure 1).

With respect to the limitations of claim 7 and each of said one or more output indicators have an image or symbol for identifying the function and/or operation corresponding thereto, Barber discloses the microprocessor being programmed to cause the temperature setting (4) to be indicated on the left-hand side of the display (6) (e.g. double dot as illustrated in Figure 1) and the sensed temperature being indicated on the right-hand side of the display (page 4, lines 28-34; see Figure 1). The disclosed temperatures display settings (i.e. single dot, double dot, etc.) are symbolic markings

providing communication to the user about the status of the device, therefore, the disclosed markings of a single dot, double dot, triple dot, "STEAM" and "MAX", as displayed on the LCD display (6) with respect to the temperature selection of temperature selector (4), are inherently symbols.

With respect to the limitations of claims 8 and 9 and at least one of said one or more output indicators being a display panel, specifically an LCD panel, Barber explicitly discloses an indicating means being an LCD screen mounted on the iron (page 2, lines 22-23) and an LCD screen is inherently a display panel as indicated by Figure 1.

With respect to the limitations of claim 12 and one or more output indicators being a visual indicator, Barber explicitly discloses an indicating means being an LCD screen mounted on the iron (page 2, lines 22-23) and further discloses the LCD display (6) providing a visual warning (page 3, lines 16-25).

With respect to the limitations of claim 13 and one or more output indicators being an audible indicator, Barber explicitly discloses the visual warning may be supplemented by a sound warning, e.g., by means of a small sound transducer on the surface of the body (5) of the iron (page 3, lines 27-32).

With respect to the limitations of claim 15 and microprocessor being operatively connected to a sound generator, one or more sensors, and/or a heater, Barber explicitly discloses a schematic circuit comprising microprocessor (14), temperature sensor/thermistor (8), and a thyristor to regulate the power supplied to the heating element, all being controlled by the microprocessor (14) (page 4, lines 12-33; see Figure 2). With respect to the microprocessor being connected to the sound generator,

Barber discloses the visual warming (i.e. LCD display 6) being controlled by the microprocessor (14) and since the visual warning may be supplemented by a sound warning, as noted above, the sound generator (sound transducer) would inherently be operatively connected to the microprocessor (14).

With respect to the limitations of claims 16 and microprocessor is also operatively connected to a timer, Barber explicitly disclose the microprocessor (14) being programmed to respond to the desired temperature setting (4) and to provide trigger signals e.g. for phase or burst firing control of the thyristor to regulate the power supplied to the heating element (page 4, lines 22-26). Therefore, in view of the microprocessor (14) providing trigger signals, which are inherently based on time, the microprocessor (14) would be inherently operatively connected to a timer to function as cited.

With respect to the limitations of claims 18 and 19 and a digital interface, Barber discloses a microprocessor (14) in interactive communications with a temperature selector (4) and LCD display (6) providing an indicating means, or interface, to the user with respect to the status of the device. Since the control circuit device is a circuit utilizing a microprocessor (14) that is exchanging data between input and output devices and microprocessors function in the digital domain, the interface of the iron would inherently be digital.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barber (UK Patent No. GB 2221925A) in view of Riess et al. (U.S. Patent No. 6,509,555).

The claims differ form Barber in calling for one or more output indicators being a tactile indicator and the microprocessor operatively connected to a vibrator (tactile sensor).

However, hand held heating devices having a microprocessor operatively connected to a vibrator/tactile indicator, as described by Riess et al., is known in the art. Riess et al. teach a hand held heater comprising a microprocessor (540) operatively connected to a tactile feedback solenoid (26; see column 35, lines 22-31) to alert the user of a successful operation of the device (column 23, lines 52-58), thereby improving

the user interface of the device to ensure system notification to the user. Riess et al. further teaches the tactile output being a motor vibration or a solenoid actuation (column 46, claims 11, 12; column 50, claims 44, 45). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify microprocessor and output indicators of Barber with the microprocessor and control of the tactile output/vibration of Riess et al. to alert the user of a successful operation of the device, thereby improving the user interface of the device to ensure system notification to the user.

9. Claims 3-5, 10 and 82-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barber (UK Patent No. GB 2221925A) in view of Wellcome (Wellcome (UK Patent Application No. GB 2163574A) as evidenced by Upadhye et al. (U.S. Publication No. 2003/0074903) .

With respect to the limitations of claims 3 and 82-84, the claims differ from Barber in calling for at least one of said one or more input selectors being a touch-sensitive panel instead of a rotary knob.

However, a digital interface/input selector being a touch-sensitive panel, as described by Wellcome, is known in the art. Wellcome teaches a control panel (6) for an iron comprising a row of press-buttons (7) with each button corresponding to a particular temperature of the iron (1) (page 1, lines 77-81). In addition, Wellcome teaches the panel also indicating the fabric types suitable for each temperature and conventional dot markings used on conventional iron temperature controls (page 1, lines 82-86).

Wellcome further teaches that input from the user of the iron (1), through the press-buttons (7) on the control panel (6), is passed from the microprocessor (9) and in return to the digital display (8). The press-buttons (7) of the control panel (6) structure fully meets an "one or more input selectors being a touch-sensitive panel" given its broadest reasonable interpretation and are furthermore inherently touch-sensitive due to them being pressed to actuate their functionality. Wellcome teaches that a touch-sensitive control panel is an equivalent structure known in the art. Therefore, because these temperature selection devices were art recognized equivalents at the time of the invention was made, one of ordinary skill in the art would have found it obvious to substitute a touch-sensitive temperature selector input panel for a rotary temperature input knob, since a touch-sensitive temperature selector would remove movable mechanical actuating parts and replace them with digital components, thereby increasing the operational longevity of the device.

With respect to the limitations of claims 4 and 5 , the Barber-Wellcome controller combination discloses all of the limitations, as described in the claims above, however is silent to the type of display panel the at least one of said one or more input selectors are (i.e. LED or LCD). However, Upadhye et al. teach that input user interface touchscreen LCD panel or LED panel for a portable heating device being equivalent structures known in the art. Upadhye et al. teach an input device (exemplary input device 76 shown as a keypad may also include a touchscreen) comprising input selectors (touchscreen) being displayed in an LCD or LED display (display indicator 78) depending on the temperature selection (page 3, paragraph 40; see Figure 9).

Furthermore, the touchscreen input device (76) being on a LCD or LED display panel structure fully meets an "input selector being an LCD or LED panel" given its broadest reasonable interpretation. Therefore, because these two input selector display panel devices were art recognized equivalents at the time of the invention was made, one of ordinary skill in the art would have found it obvious to utilize an input touchscreen selector on an LCD or LED panel, depending on system requirements, to provide a lower power consumption device and a higher resolution in the device allowing for a smaller but comfortable display, thereby providing a quality product interaction experience.

With respect to the limitations of claims 10, the Barber-Wellcome controller combination discloses all of the limitations, as described in the claims above, except for using an LED output indicator instead of an LCD output indicator. However, Upadhye et al. teach that an LED output display indicator panel for a portable heating device is equivalent structure known in the art. Upadhye et al. teach an output display indicator panel device (exemplary input device 76 shown as a keypad may also include a touch screen) comprising input selectors (touchscreen) being displayed in an LCD or LED display (display indicator 78) depending on the temperature selection (page 3, paragraph 40; see Figure 9). Therefore, because these two output display indicators panels were art recognized equivalents at the time of the invention was made, one of ordinary skill in the art would have found it obvious to substitute an LED output display indicator panel for LCD output display indicator panel, depending on system requirements, to provide a lower power consumption device and a higher resolution in

the device allowing for a smaller but comfortable display, thereby providing a quality product interaction experience.

Response to Arguments

10. Examiner accepts amendments to Specification and Claims and respectfully withdraws the objections with respect to them, accordingly. However, an objection with respect to the Drawings is still outstanding, as noted above.

11. Applicant's arguments with respect to claims 1-10, 12-20 and 23-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Ralis whose telephone number is 571-272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen J Ralis
Examiner
Art Unit 3742

SJR
January 18, 2007

ROBIN EVANS
SUPERVISORY PATENT EXAMINER
1/28/07